

CLAIM AMENDMENTS

Claims 27-49 (canceled).

Claim 50 (new): A method for preparing polyisoprene emulsion articles, comprising the steps of:

(a) preparing an aqueous polyisoprene emulsion, wherein said polyisoprene emulsion is prepared under room temperature and normal pressure by a copolymerization through mixing monomer selected from a group consisting of styrene, acrylates, and organic carboxylic acid with isoprene monomer, wherein said acrylate is one or more compounds selected from a group consisting of methyl acrylate, ethyl acrylate, butyl acrylate, iso-octyl acrylate, methyl methacrylate, and butyl methacrylate;

(b) blending water-dispersible vulcanization auxiliaries with said aqueous polyisoprene emulsion to form a blended polyisoprene emulsion;

(c) aging said blend polyisoprene emulsion;

(d) adding coagulant into said blended polyisoprene emulsion;

(e) dip-molding said blended polyisoprene emulsion into polyisoprene latex articles;

(f) wherein step (e) further comprises a step of drying said polyisoprene articles at 60 to 170°C; and

(g) curing into a shape to afford the corresponding articles a thickness of film from 0.05 mm to 0.50 mm, a tensile strength of film greater than 8Mpa and an elongation rate of film greater than 800%.

Claim 51 (new): The method as recited in claim 50, wherein said organic carboxylic acid is one or more compounds selected from a group consisting of acrylic acid, methacrylic acid, maleic acid, fumaric acid, and methylenebutene dicarboxylic acid.

Claim 52 (new): The method as recited in claim 51, wherein the step (a) further comprises the steps of:

(a.1) charging a portion of said monomers together with an initiator and an emulsifier into a reactor to form a mixture;

(a.2) reacting said mixture for 30 to 60 minutes at room temperature;

(a.3) adding dropwise remaining portion of said monomers and other raw materials into said reactor for 3 to 6 hours; and

(a.4) reacting said mixture under a nitrogen atmosphere for 12 to 40 hours.

Claim 53 (new): The method as recited in claim 52, wherein in the step (a.1), said emulsifier, which is a combination of an anionic emulsifier and non-ionic emulsifier, is selected from a group consisting of sodium dodecyl sulfate, sodium dodecanesulphonate, and OS emulsifier, wherein said non-ionic emulsifier is nonylphenol polyethylene glycol oxide.

Claim 54 (new): The method as recited in claim 53, wherein in the step (a.1), an amount of said emulsifier is 5 to 30% by weight, based on total amounts of said monomers.

Claim 55 (new): The method as recited in claim 53, wherein in the step (a.1), said initiator used for polyisoprene emulsion polymerization is a redox system, wherein an oxidant is selected from a group consisting of water-soluble presulfate and an oil-soluble peroxide, wherein a reductant is selected from a group consisting of sodium bisulfite, iron(II) sulfate, wherein an amount of said initiator is 0.3 to 3% by weight based on a total amounts of said monomers.

Claim 56 (new): The method as recited in claim 53, wherein the step (a) further comprises a step of adding a co-reductant, a complexing agent and a precipitating agent to maintain a concentration of a ferrous iron (II) ion for ensuring a steady reaction, wherein said co-reductant includes formaldehyde sulfoxylate, wherein said complexing agent is ethylenediamine tetraacetic acid, wherein said precipitating agent is pyrophosphates.

Claim 57 (new): The method as recited in claim 53, wherein in the step (b), said water-dispersible vulcanization auxiliaries are selected from a group consisting of vulcanizers, vulcanization accelerators, and age inhibitors, wherein said vulcanizer is

sulfur, wherein said vulcanization accelerator includes sulfenamides and thiurams with an amount of 0.5 to 10% by weight based on an amount of said polyisoprene emulsion.

Claim 58 (new): The method as recited in claim 53, wherein in the step (d), said coagulant is a mixture of cationic salts and auxiliaries, wherein said cationic salts is selected from a group consisting of hydrochlorides and nitrates of calcium ion, zinc ion, and aluminum ion, wherein an amount of said coagulant is 10 to 30% by weight based on an amount of said polyisoprene emulsion.

Claim 59 (new): A method for preparing polyisoprene emulsion articles, comprising the steps of:

(a) preparing an aqueous polyisoprene emulsion, under normal room temperature and pressure wherein said polyisoprene emulsion is prepared by free radical emulsion polymerization from isoprene monomers under a normal pressure;

(b) blending water-dispersible vulcanization auxiliaries with said aqueous polyisoprene emulsion to form a blended polyisoprene emulsion;

(c) aging said blend polyisoprene emulsion;

(d) adding coagulant into said blended polyisoprene emulsion;

(e) dip-molding said blended polyisoprene emulsion into polyisoprene latex articles;

(f) wherein step (e) further comprises a step of drying said polyisoprene articles at 60 to 170°C; and

(g) curing into a shape to afford the corresponding articles a thickness of film from 0.05 mm to 0.50 mm, a tensile strength of film greater than 8Mpa and an elongation rate of film greater than 800%.

Claim 60 (new): The method as recited in claim 59, wherein the step (a) further comprises the steps of:

(a.1) charging a portion of said monomers together with an initiator and an emulsifier into a reactor to form a mixture;

(a.2) reacting said mixture for 30 to 60 minutes at room temperature;

(a.3) adding dropwise remaining portion of said monomers and other raw materials into said reactor for 3 to 6 hours; and

(a.4) reacting said mixture under a nitrogen atmosphere for 12 to 40 hours.

Claim 61 (new): The method as recited in claim 60, wherein in the step (a.1), said emulsifier is a combination of an anionic emulsifier and non-ionic emulsifier, is selected from a group consisting of sodium dodecyl sulfate, sodium dodecanesulphonate, and OS emulsifier, wherein said non-ionic emulsifier is nonylphenol polyethylene glycol oxide.

Claim 62 (new): The method as recited in claim 61, wherein in the step (a.1), an amount of said emulsifier is 5 to 30% by weight, based on total amounts of said monomers.

Claim 63 (new): The method as recited in claim 61, wherein in the step (a.1), said initiator used for polyisoprene emulsion polymerization is a redox system, wherein an oxidant is selected from a group consisting of water-soluble presulfate and an oil-soluble peroxide, wherein a reductant is selected from a group consisting of sodium bisulfite, iron(II) sulfate, wherein an amount of said initiator is 0.3 to 3% by weight based on a total amounts of said monomers.

Claim 64 (new): The method as recited in claim 61, wherein the step (a) further comprises a step of adding a co-reductant, a complexing agent and a precipitating agent to maintain a concentration of a ferrous iron (II) ion for ensuring a steady reaction, wherein said co-reductant includes formaldehyde sulfoxylate, wherein said complexing agent is ethylenediamine trtraacetic acide, wherein said precipitating agent is pyrophosphates.

Claim 65 (new): The method as recited in claim 61, wherein in the step (b), said water-dispersible vulcanization auxiliaries are selected from a group consisting of vulcanizators, vulcanization accelerators, and age inhibitors, wherein said vulcanizator is sulfur, wherein said vulcanization accelerator includes sulfonamides and thiurams with an amount of 0.5 to 10% by weight based on an amount of said polyisoprene emulsion.

Claim 66 (new): The method as recited in claim 61, wherein in the step (d), said coagulant is a mixture of cationic salts and auxiliaries, wherein said cationic salts is selected from a group consisting of hydrochlorides and nitrates of calcium ion, zinc ion, and aluminum ion, wherein an amount of said coagulant is 10 to 30% by weight based on an amount of said polyisoprene emulsion.